

CIRCUITRY AND SYSTEMS FOR PERFORMING TWO-DIMENSIONAL MOTION
COMPENSATION USING A THREE-DIMENSIONAL PIPELINE
AND METHODS OF OPERATING THE SAME

5 ABSTRACT OF THE DISCLOSURE

10 The present invention introduces circuitry and systems for
performing two-dimensional motion compensation using a three-
dimensional pipeline, as well as methods of operating the same.
According to an exemplary embodiment, image processing circuitry is
provided and includes both a two-dimensional image pipeline, which
is operable to process two dimensional image data to generate
successive two-dimensional image frames, and a three-dimensional
image pipeline, which is operable to process three-dimensional
image data to render successive three-dimensional image frames.
15 The image processing circuitry further includes dual mode sub-
processing circuitry, which is associated with each of the two- and
three-dimensional image pipelines. The dual mode sub-processing
circuitry is operable to perform motion compensation operations
associated with the two-dimensional image pipeline in one mode and
20 to perform rasterization operations associated the three-
dimensional image pipeline in another mode.